ELSEVIER

Optics and Lasers in Engineering **23** (1995) 375–377
Elsevier Science Limited
Printed in Northern Ireland

CONTENTS OF VOLUME 23

Number 1

1 Laser Longitudinal Mode Splitting Phenomenon and Its Applications in Laser Physics and Active Metrology Sensors
S. ZHANG, H. GUO, K. LI & Y. HAN (People's Republic of China)

29 A Compact, Robust and Versatile Moiré Interferometer
D. H. MOLLENHAUER, P. G. IFJU & B. HAN (USA)

41 Long-range Optical Triangulation Utilising Collimated Probe Beam
H. WANG (Mexico)

53 Study into Laser Heating of Ti–14Al–21Nb Alloy to Improve Properties
B. S. YILBAŞ, A. Z. ŞAHIN, M. SAMI, A. ÇOBAN & R. BOZDOĞAN (Saudi Arabia)

Research Note

65 Non-destructive Evaluation of Metallic Electrodes Under Corrosion Fatigue Conditions by Holographic Interferometry
K. HABIB (Kuwait)

71 Calendar

Numbers 2–3

Special Issue on Optical Signal Processing

73 Guest Editorial

75 Tuneable Edge Enhancement Filters for Optical Correlation
C. R. CHATWIN, R. K. WANG & R. C. D. YOUNG (UK)

93 Experimental Implementation of a Joint Transform Correlator Using Synthetic Discriminant Functions
L. BIGUE, M. FRACES & P. AMBS (France)

113 Typewritten Text Identification Using Joint Transform Correlator
S. TING, D. A. POMMET, D. MANETTAS & M. A. FIDDY (USA)

121 Optical Processing of Speckle Images with Bacteriorhodopsin for Pattern Recognition
J. D. DOWNIE (USA)

137 The Dual Twin Image Effect from a Waveguide Hologram
W. Y. XU, D. A. POMMET, E. C. LIN, M. A. FIDDY & M. D. DRAKE (USA)

145 Self-pumped Phase Conjugate Resonators and Mirrors for use in Optical Associative Memories
D. R. SELVIAH & C.-C. CHANG (UK)

167 A Hybrid Neural Network for Image Classification
K. Y. HSU, S. H. LIN & T. C. HSIEH (Taiwan)

185 New $N \times N$ Optical Switch Construction
S. SAINOV & P. POPOV (Bulgaria)

195 Calendar

Number 4

199 Several Factors Impairing the Phase Measurement Accuracy
J. ZHOU & Z. LIANG (People's Republic of China)

213 Nondestructive Evaluation of an Epoxy-based Coating by Optical Interferometry Techniques
K. HABIB (Kuwait)

221 Beam Delivery Characteristics of Optical Fibres for Carbon Monoxide Lasers
S. SOMKUARNPANIT, D. SU, F. VILLARREAL, A. D. COLLEY, H. J. BAKER, J. D. C. JONES & D. R. HALL (UK)

233 Determination of Residual Stresses Using Large Shearing Speckle Interferometry and the Hole Drilling Method
S. Y. WU & Y. W. QIN (People's Republic of China)

245 The Use of Carrier Frequency Shifting for the Elimination of Phase Discontinuities in Fourier Transform Profilometry
D. R. BURTON, A. J. GOODALL, J. T. ATKINSON & M. J. LALOR (UK)

259 Book Reviews

Number 5

Special Issue on Interferogram Analysis

261 Guest Editorial

263 Multi-Channel Pressure Sensor using Speckle Interferometry
J. M. HUNTLEY (UK) & H. O. SALDNER (Sweden)

277 Estimation of Masonry Mechanical Characteristics by ESPI Fringe Interpretation
M. FACCHINI, P. ZANETTA (UK), L. BINDA, G. MIRABELLA ROBERTI & C. TIRABOSCHI (Italy)

291 Three-Dimensional Human Femoral Strain Analysis using ESPI
J. R. TYRER, C. HERAS-PALOU & T. SLATER (UK)

305 Automated Fine Grid Technique for Measurement of Large-Strain Deformation Maps
H. T. GOLDREIN, S. J. P. PALMER & J. M. HUNTLEY (UK)

319 Phase Demodulation in the Space Domain without a Fringe Carrier
A. J. MOORE & F. MENDOZA-SANTOYO (Mexico)

331 Applying Backpropagation Neural Networks to Fringe Analysis
H. MILLS, D. R. BURTON & M. J. LALOR (UK)

343 Spatial Phase Stepping Method of Fringe-Pattern Analysis
P. H. CHAN, P. J. BRYANSTON-CROSS & S. C. PARKER (UK)

355 Noisy Fringe Pattern Demodulation by an Iterative Phase Locked Loop
M. SERVIN, R. RODRIGUEZ-VERA & D. MALACARA (Mexico)

367 Letter
E. P. TOMASINI

369 EUROPTO Meetings

371 Calendar